

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028303**Date Inspected:** 29-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Ultrasonic Testing OBG

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) deck panel drop-in connections on lift 13W. The welds were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 13W deck panel drop-in splice (Weld No. 13W-W2.4)

The QAI performed a minimum of 30% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 13W deck panel drop-in splice (Weld No. 13W-W2.5)

The QAI performed a minimum of 30% verification of this weld. A total of one rejectable indication was observed at the time of inspection. The Rejectable indication was confirmed by ABF QC inspector Harry Scharein during this shift.

The QAI noted and periodically observed ABF welder Eric Sparks #3040 performing Shielded Metal Arc Welding (SMAW) in the 3G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1. 5-1004-Repair. The repairs are located on the edge plate field splice between lift 13E/14E. The weld is designated

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

as 13E/14E-G. The weld and surrounding area was brought to a temperature by the use of a gas torch and the Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters at the beginning of welding.

Magnetic Particle Testing (OBG 13W)

This QA Inspector performed a minimum of 15% verification Magnetic Particle Testing (MT) of the deck panel drop-in splice weld connection from face A/B. This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

Deck Drop-in Transverse Splice (Weld 13W-W2.4 Face A/B)

A minimum of 15% verification was performed from face A/B. The QAI observed no rejectable indications at the time of testing; however the welds were initially rejected visually from face A due to excessive reinforcement. Minor repair by grinding was performed prior to acceptance.

The ABF/JV QC inspector Salvador Merino was observed performing magnetic particle testing (MT) in way of the repair excavations at the following locations,

13E-PP122.2

Y=0~2000 Depth 13, Width 45mm, Length 2000mm

The QAI then noted and periodically observed ABF welder Richard Garcia #5892 performing Flux Cored Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-3110-4. The repairs are located on deck panel drop-in splice transverse weld designated as 13E-PP122. The weld and surrounding area was brought to a temperature by the use of induction heaters and the Quality Control (QC) inspector Fred Michaels was observed monitoring the welding parameters at the beginning of welding. After review of the request for weld repair document RWR201208-105, the QAI confirmed that the ABF QC disregarded the approved document and performed critical weld repairs with a welding procedure not specified in the approved document. The repair welding was performed on approximately two meters of the of the transverse deck splice. The weld connection is designated on the contract drawings as a Seismic Performance Critical Member (SPCM). The QA task leader was notified in writing of the non-compliant issue for further discussion with the Caltrans Structural Materials Representative (SMR) and ABF Management.

The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

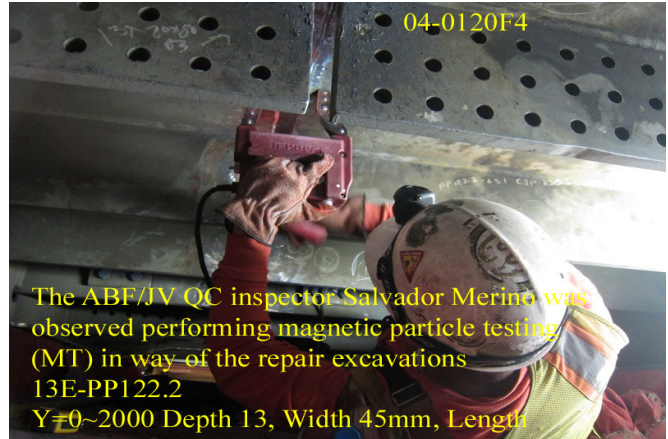
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Patterson,Rodney

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer